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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,162	01/18/2002	Siu Choon Ng	4810-62169	5351

7590 10/03/2003

KLARQUIST SPARKMAN, LLP
One World Trade Center
Suite 1600
121 S. W. Salmon Street
Portland, OR 97204

EXAMINER	
THERKORN, ERNEST G	
ART UNIT	PAPER NUMBER
1723	

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/054,162	NG ET AL.	
	Examiner	Art Unit	
	Ernest G. Therkorn	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 September 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *35-40 and 43-59* is/are pending in the application.

4a) Of the above claim(s) *38-40,45-47 and 55-59* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *35-37,43,44 and 48-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claims 35-37, 43, 44, and 48-54 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. No support for "amino" can be found. Page 3, lines 8, 18, and 27 of the specification discloses use of "imino." As such, "amino" is considered to be new matter.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 35-37, 43, 44, and 48-54 are rejected under 35 U.S.C. 102(B) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ng (U.S. Patent No. 6,017,458). The claims are considered to read on Ng (U.S. Patent No. 6,017,458). However, if a difference exists between the claims and Ng (U.S. Patent No. 6,017,458), it would reside in optimizing the elements of Ng (U.S. Patent No.

6,017,458). It would have been obvious to optimize the elements of Ng (U.S. Patent No. 6,017,458) to enhance separation.

Claims 35-37, 43, 44, and 48-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Okamoto (U.S. Patent No. 5,639,824) or Konig (U.S. Patent No. 5,198,429) in view of each of Ng (U.S. Patent No. 6,017,458), Cabrera (U.S. Patent No. 5,104,547), and Abbott (U.S. Patent No. 4,298,500). At best, the claims differ from each of Okamoto (U.S. Patent No. 5,639,824) and Konig (U.S. Patent No. 5,198,429) in reciting fully functionalized. Ng (U.S. Patent No. 6,017,458) (column 4, lines 1-7) and Cabrera (U.S. Patent No. 5,104,547) (column 3, lines 48-55) disclose capping to block hydroxyl groups. Abbott (U.S. Patent No. 4,298,500) (column 8, lines 49-56) discloses capping the remaining available sites allows for separation of specific biomolecules. It would have been obvious to cap in each of Okamoto (U.S. Patent No. 5,639,824) and Konig (U.S. Patent No. 5,198,429) either because Ng (U.S. Patent No. 6,017,458) (column 4, lines 1-7) and Cabrera (U.S. Patent No. 5,104,547) (column 3, lines 48-55) disclose capping to block hydroxyl groups or because Abbott (U.S. Patent No. 4,298,500) (column 8, lines 49-56) discloses capping the remaining available sites allows for separation of specific biomolecules.

Claims 36, 37, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Okamoto (U.S. Patent No. 5,639,824) or Konig (U.S. Patent No. 5,198,429) in view of each of Ng (U.S. Patent No. 6,017,458), Cabrera (U.S. Patent No. 5,104,547), and Abbott (U.S. Patent No. 4,298,500) as applied to claims 35-37, 43, and 48-54 above, and further in view of Ng (U.S. Patent No. 6,017,458). The claims

differ from either Okamoto (U.S. Patent No. 5,639,824) or Konig (U.S. Patent No. 5,198,429) in view of each of Ng (U.S. Patent No. 6,017,458), Cabrera (U.S. Patent No. 5,104,547), and Abbott (U.S. Patent No. 4,298,500) in reciting silyl moieties and use of an amine linkage. Ng (U.S. Patent No. 6,017,458) (column 2, lines 10-19; column 2, line 60-column 3, line 6; and column 3, lines 41-51) discloses forming a silane derivative that results in a product that is universally applicable to HPLC, LC, TLC, and CLE. It would have been obvious to use silyl moieties in either Okamoto (U.S. Patent No. 5,639,824) or Konig (U.S. Patent No. 5,198,429) in view of each of Ng (U.S. Patent No. 6,017,458), Cabrera (U.S. Patent No. 5,104,547), and Abbott (U.S. Patent No. 4,298,500) because Ng (U.S. Patent No. 6,017,458) (column 2, lines 10-19; column 2, line 60-column 3, line 6; and column 3, lines 41-51) discloses forming a silane derivative that results in a product that is universally applicable to HPLC, LC, TLC, and CLE.

Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Okamoto (U.S. Patent No. 5,639,824) or Konig (U.S. Patent No. 5,198,429) in view of each of Ng (U.S. Patent No. 6,017,458), Cabrera (U.S. Patent No. 5,104,547), and Abbott (U.S. Patent No. 4,298,500) as applied to claims 35-37, 43, and 48-54 above, and further in view of Armstrong (U.S. Patent No. 5,964,996). At best, the claim differs from either Okamoto (U.S. Patent No. 5,639,824) or Konig (U.S. Patent No. 5,198,429) in view of each of Ng (U.S. Patent No. 6,017,458), Cabrera (U.S. Patent No. 5,104,547), and Abbott (U.S. Patent No. 4,298,500) in reciting use of an amine. Armstrong (U.S. Patent No. 5,964,996) (column 7, lines 27-29) discloses that ether and amines are interchangeable linking agents. It would have been obvious to use an amine in either

Okamoto (U.S. Patent No. 5,639,824) or Konig (U.S. Patent No. 5,198,429) in view of each of Ng (U.S. Patent No. 6,017,458), Cabrera (U.S. Patent No. 5,104,547), and Abbott (U.S. Patent No. 4,298,500) because Armstrong (U.S. Patent No. 5,964,996) (column 7, lines 27-29) discloses that ether and amines are interchangeable linking agents.

Claims 38-40 and 45-47 have been withdrawn as being drawn to non-elected species.

Claims 55-59 have been withdrawn as being drawn to a non-elected invention.

The remarks urge that inventions I (claims 55-59) and III should be rejoined because there is no serious burden on the examiner. However, inventions I and III have different fields of search and different issues of patentability. As such, an enormous burden would be placed on the examiner to examine an additional invention, namely claims 55-59, directed to invention I. As such, the restriction and election of species requirement have been reconsidered, deemed proper, and made final for the reasons of record.

Any inquiry concerning this communication should be directed to E. Therkorn at telephone number (703) 308-0362.

Ernest G. Therkorn
Ernest G. Therkorn
Primary Examiner
Art Unit 1723

EGT
September 30, 2003